Honeywell

WEBs-AX GPRS Modem

INSTALLATION INSTRUCTIONS

This document covers the mounting of the NPB-GPRS-H/ NPB-GPRS-W-H wireless modem option card in a WEB-201, WEB-600, WEB-700, or WEB-870 controller.

Description

WEBs-AX GPRS cellular modem option card is designed to mount in an option card slot of a WEB-201, WEB-600, WEB-700, or WEB-870 controller. This modem uses GPRS (General Packet Radio Service) data technology and has 2 LED indicators for status and signal. An antenna with an SMA coax connector is included in the package. An optional coax extension cable is available for remote mounting.

NOTES:

— The GPRS modem requires a SIM (subscriber identity module) card from an approved vendor. At the time this document was created, only a SIM card provisioned by Wyless Group is supported.

— WEBs controllers require NiagaraAX build 3.4 or later to support operation of the GPRS modem.

Not covered in this document is the software setup and operation of the installed GPRS modem option. Refer to the NiagaraAX GPRS modem option - engineering notes document for this information.

For all other related mounting and wiring details, refer to the appropriate mounting and wiring document. See “Related Documentation” on page 4.

Included in this Package

Included in this package you should find the following items:

- An NPB-GPRS-H modem option card, with pre-attached endplate.
- If an NPB-GPRS-W-H, a Wyless provisioned SIM card, ready for “Pre-installation”.
- A right-angle GSM/GPRS quad-band SMA coax-mounted stub antenna.

This document WEBs-AX GPRS Modem Installation Sheets.

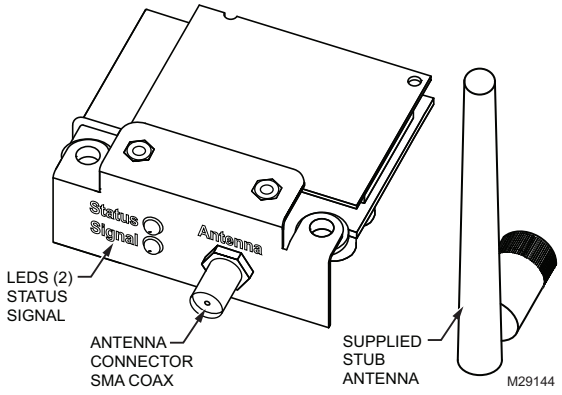

Fig. 1. NPB-GPRS-H Modem Option.

Material and Tools Required

The following supplies and tools are required:

- SIM card from approved wireless service provider.
- #2 phillips screwdriver: used to install the NPB-GPRS-H option card.

PRE-INSTALLATION

Prior to mounting the NPB-GPRS-H modem option card in the controller, install the SIM card into the connector on the underside of the option card.

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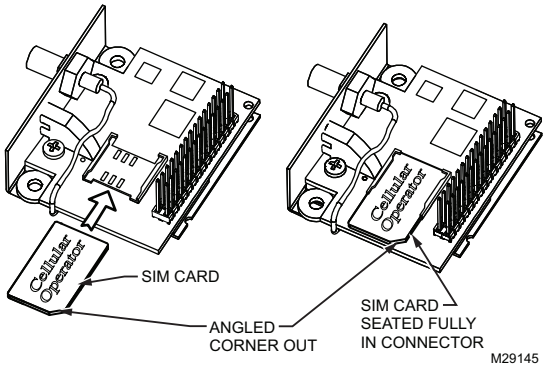

Fig. 2. Inserting SIM into underside of NPB-GPRS-H.

To install, orient the SIM with its foil connectors down (writing side up) and its angled corner out, and slide fully into the connector. See Fig. 2 above.

MOUNTING

⚠ WARNING

Power to the controller must be OFF when installing or removing option cards, or damage will occur! Be very careful to plug any option card into its connector properly (pins aligned).

Mount the NPB-GPRS-H card in either of the available option card slots of a WEB-201, WEB-600, WEB-700, or WEB-870 controller. If mounting on a WEB-870 controller, the upper option slot (Slot 2) is recommended.

Procedure 1:
Mounting NPB-GPRS-H option card on a WEBs controller.

1. Remove power from the controller—see the previous Warning.
2. For a WEB-201, 600, or 700, remove the cover. To do this, press in the four tabs on both ends of the unit, and lift the cover off.

NOTE: If accessory modules are plugged into the controller, you may need to slide them away from the unit to get to the cover tabs.

3. Remove the battery and bracket assembly by taking out the four screws holding it in place, setting the screws aside for later. Unplug the battery from the connector on the controller. Fig. 3 shows an exploded view of a WEB-201/600.

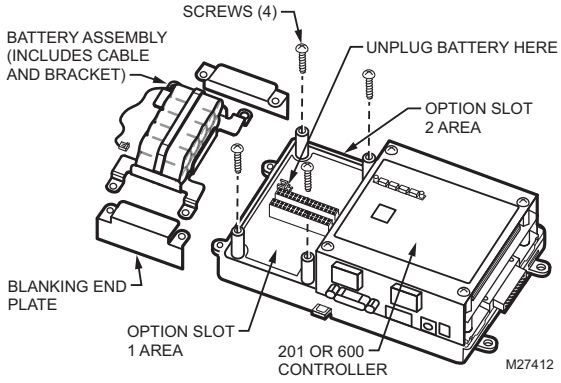

Fig. 3. Remove screws and battery assembly.

NOTE: The tie wrap on the battery pack should have its lock "knot" on top, as shown in Figure 3. If not, cut and remove the tie, then re-install another tie wrap with its lock tab on top. (Tie lock at bottom interferes with option card).

4. Remove the blanking end plate for the slot you are installing the option card into.
   (Retain the blanking end plate in case the option card must be removed at a later date.)
5. Carefully insert the pins of the NPB-GPRS-H into the socket of the appropriate option card slot. The mounting holes on the option board should line up with the stand-offs on the base board. If they do not, the connector is not properly aligned. Press until the option card is completely seated.

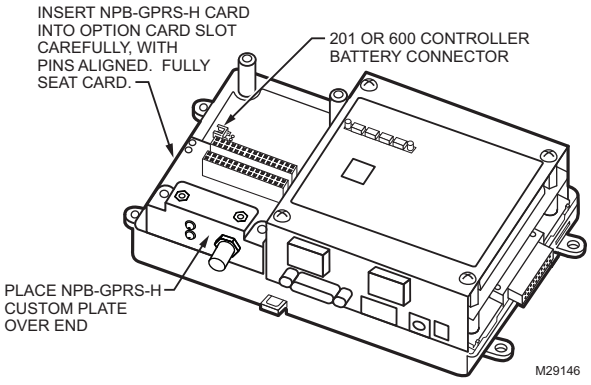
INSERT NPB-GPRS-H CARD INTO OPTION CARD SLOT CAREFULLY, WITH PINS ALIGNED. FULLY SEAT CARD.
201 OR 600 CONTROLLER BATTERY CONNECTOR
PLACE NPB-GPRS-H CUSTOM PLATE OVER END
M29146

Fig. 4. NPB-GPRS-H inserted, end plate on top.

6. Plug the battery cable into the battery connector on the controller (see Fig. 4 for location).
7. Set the battery and bracket assembly back over the option card slots, with the mounting holes aligned with the standoffs.
8. Place the four screws through the battery bracket, end plates, and into the standoffs on the controller base board. Hand tighten these screws.

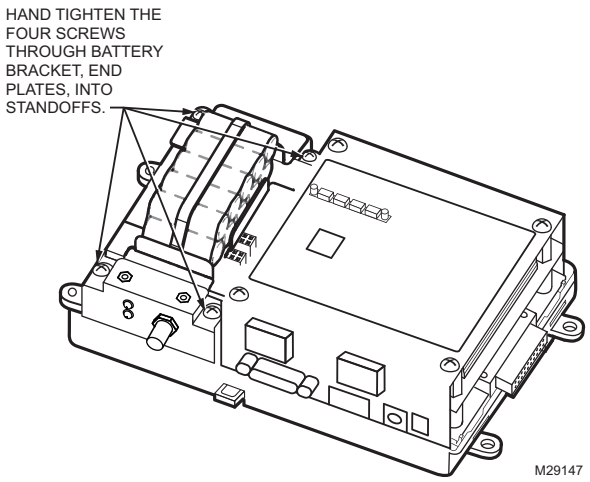

Fig. 5. Re-fasten screws through battery bracket.

9. Replace the controller cover.
If accessory modules were unplugged, plug them back into the controller as before, and secure.

ATTACHING ANTENNA

A GSM/GPRS stub antenna with right-angle SMA male coax connector is provided for use with WEB-201, WEB-600, WEB-700 controller. To attach, simply insert into the SMA coax jack on the modem, and finger-tighten the knurled nut (Fig. 3).

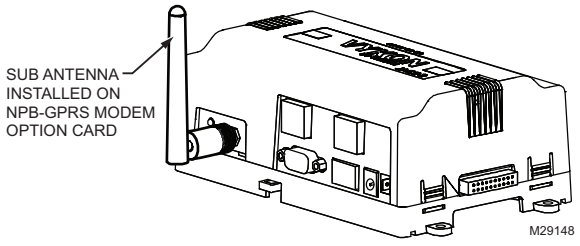

Fig. 6. SMA stub antenna on WEB-201/600.

Rotate in whatever position is needed for mounting clearance and/or best reception. If needed, you can use the H-GPRS-CBL-EXT “Antenna Extension Option”.

Antenna Extension Option

To locate the included stub antenna remotely from controller, order and install the H-GPRS-CBL-EXT option. Included is a 6.56 ft. (2m) SMA-type coax extension cable and steel bracket for wall or panel mounting. See Fig. 7 for bracket details and dimensions.

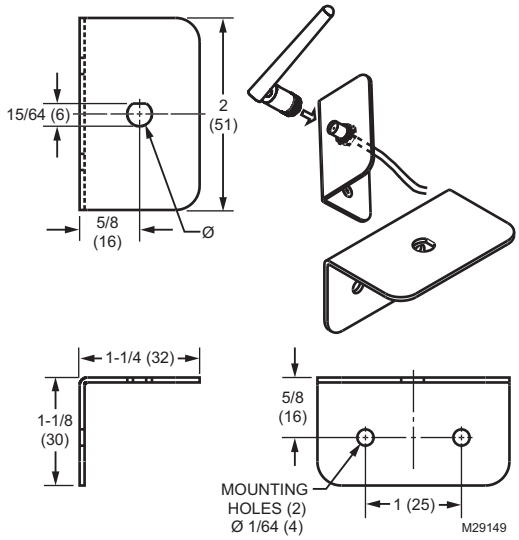

Fig. 7. H-GPRS-CBL-EXT bracket details.

Some installations may require a different external antenna.

NOTE: Any external antenna must be compatible with the GSM 900/1800 frequency and the 50Ω impedance of the SMA coax connector on the NPB-GPRS-H modem.

LEDS

Two LEDs are located on the endplate of the NPB-GPRS-H option card. On the option card label these appear as “STATUS” and “SIGNAL”—see Fig. 1 on page 1.

These two LEDs are briefly described as follows:

- STATUS (green) — Flashes various LED patterns based on the state of the modem. This LED is directly under control of the modem itself (rather than the NiagaraAX modem driver).
  Upon initial power up, the Status LED pattern is typically 600ms On / 600ms Off, and may change depending on various modem state changes.
- SIGNAL (green) — Indicates the RSSI (received signal strength indicator), according to the number of short (350ms On) flash patterns. Analogous to “number of bars” on a cell phone.

For further details on the operation of both LEDs, see the NiagaraAX *GPRS modem option - Engineering Notes* document.

Modem Checkout

After mounting the NPB-GPRS-H modem option and attaching the antenna, power the controller on. Following reboot of the controller, the modem is configured by opening a platform connection to the controller.

To verify modem communications, verify that status properties in the “GPRS Modem Configuration” platform view show returned values.

RELATED DOCUMENTATION

For more information on mounting and wiring a WEBs-AX controller, refer to the following documents:

- *WEB-201/600 Installation Instructions, Form no. 95-7722*
- *WEB-700 Installation Instructions (future release)*
- *WEB-870 Installation Instructions (future release)*

For the NiagaraAX software configuration and operation of the installed GPRS modem option:

- NiagaraAX GPRS modem option - Engineering Notes

OPTIONS AND PARTS

The following options and replacement parts may be ordered for the NPB-GPRS-H or NPB-GPRS-W-H modem:

Table 1. Parts for WEBs-AX GPRS modem.

Option/Part	Description
H-GPRS-CBL-EXT	6.56 ft (2m) SMA-type coax extension cable, and mounting bracket. See “Antenna Extension Option” on page 3.
H-GPRS-SIM-W	Replacement SIM card, provisioned by Wyless.
NPB-GPRS-H	Replacement GPRS modem option card, ***without*** bundled SIM card.

APPROVALS

FCC: The Siemens TC63 cellular communications module used on the NPB-GPRS-H modem option card is FCC approved, and has an FCC ID of QIPTC63.

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